

WHAT IS CLAIMED:

1. A method of aerating a body of water comprising propelling in the body of water a water pumping arrangement including a sheath having a turning propeller that (a) sucks water from the body into the sheath interior via at least one opening in the sheath, (b) forces the sucked water upwardly and (c) forces the upwardly forced water through another opening in the sheath below the surface of the body of the water so that the water forced through the another opening (i) has speed greater than the speed of the water sucked into the sheath and (ii) causes air bubbles to be induced in the water above the another opening.
2. The method of claim 1 wherein the propeller turns about an axis tilted at an angle in the range of 60° to 90° relative to the surface of the body of water.
3. The method of claim 1 wherein the propeller turns about an axis tilted at an angle in the range of 45° to 90° relative to the surface of the body of water.
4. The method of claim 2 wherein the sheath is propelled forward at a speed no greater than about five knots.

5. The method of claim 2 wherein the sheath is propelled forward at a speed in the range of two to three knots.
6. The method of claim 1 wherein the sheath is propelled forward at a speed no greater than about five knots.
7. The method of claim 1 wherein the sheath is propelled forward at a speed in the range of two to three knots.
8. The method of claim 1 wherein the water pumping arrangement includes a plurality of the sheaths each having a turning propeller causing steps (a), (b) and (c) to be performed relative to the sheath in which the propeller is turning.
9. The method of claim 8 wherein one of the sheaths with a turning propeller is positioned so that the propeller thereof turns about an axis that is inclined relative to the water surface at an angle that is substantially less than the inclination angle of turning propellers of others of the sheaths, the water forced by the propeller of said one sheath through the another opening of said one sheath being propelled in the propelled direction of another of the sheaths and interacting with water forced through the another opening of the another of the sheaths located in front of the one sheath so the

water propelled from the one sheath pushes forward water propelled from the another of the sheaths.

10. The method of claim 9 wherein the another of the sheaths and the one sheath have outlets at about the same distance below the surface of the water.
11. The method of claim 10 wherein the outlets are about four to six inches below the water surface.
12. The method of claim 1 wherein the outlet is about four to six inches below the water surface.
13. The method of claim 12 wherein the inlet is about 24 to 30 inches below the water surface and the water body has a depth of less than about ten feet.
14. The method of claim 12 wherein the inlet is about 60 to 66 inches below the water surface and the water body has a depth of greater than about ten feet.
15. A water craft adapted to be propelled comprising a water pumping arrangement including a sheath carried by the craft, the sheath

including a propeller adapted to be turned, the sheath, water craft and propeller being arranged for causing the propeller while turning to (a) suck water from the body into the sheath interior via at least one opening in the sheath, (b) force the sucked water upwardly and (c) force the upwardly forced water through another opening in the sheath below the surface of the body of the water for causing the water forced through the another opening to (i) have speed greater than the speed of the water sucked into the sheath and (ii) cause air bubbled to be induced in the water above the another opening.

16. The water craft of claim 15 wherein the sheath and propeller are arranged so the propeller is adapted to turn about an axis tilted at an angle in the range of 60° to 90° relative to the surface of the body of water.
17. The water craft of claim 15 wherein the water pumping apparatus includes a plurality of the sheaths each including a propeller adapted to be turned, the sheaths, water craft and propellers being arranged for causing the propellers while turning to (a) suck water from the body into the sheath interior via at least one opening in the sheath, (b) force the sucked water upwardly and (c) force the upwardly forced water through another opening in the sheath below the surface of the body of the water for causing the water forced

through the another opening to (i) have speed greater than the speed of the water sucked into the sheath and (ii) cause air bubbled to be induced in the water above the another opening.

18. The water craft of claim 17 wherein one of the sheaths is positioned so that the propeller thereof is adapted to turn about an axis that is inclined relative to the water surface at an angle that is substantially less than the inclination angle of propellers of others of the sheaths, the sheaths and propellers being arranged for causing the water forced by the propeller through the another opening of said one sheath to be propelled in the propelled direction of the sheaths and interacting with water forced through the another opening of at least one of the other sheaths located in front of the one sheath so the water propelled from the one sheath pushes forward water propelled from the at least one of the other sheaths.
19. The water craft of claim 18 wherein the outlets are about four to six inches below the water surface.
20. The water craft of claim 15 wherein the outlets are about four to six inches below the water surface.

21. The water craft of claim 15 wherein the inlet is about 24 to 30 inches below the water surface.
22. The water craft of claim 15 further including a first structure for carrying a plurality of the sheaths on opposite sides of and outboard of the craft.
23. The water craft of claim 22 wherein the structure includes a boom arrangement for carrying the plural sheaths.
24. The water craft of claim 23 wherein the boom arrangement is pivotable relative to a longitudinal axis of the watercraft for enabling the boom arrangement to be stowed on the craft without extending over the sides of the craft while the craft is being stowed or towed.
25. The water craft of claim 22 further including a second structure for carrying at least one of the sheaths forward of the forward end of the craft.
26. The water craft of claim 25 wherein the second structure is pivotable relative to the longitudinal axis of the craft between the first and second structures.

27. The water craft of claim 25 further including a third structure for carrying a further one of the sheaths between the first and second structures.
28. The water craft of claim 27 wherein the third structure is arranged for carrying the further one of the sheaths approximately along a longitudinal center axis of the craft.
29. The water craft of claim 28 wherein the first and second structures are arranged for carrying the sheaths thereof so longitudinal axes of the sheaths thereof and drive shafts of the propellers thereof are generally vertically disposed and the third structure is arranged for carrying the further sheath so longitudinal axes of the sheaths thereof and drive shafts of the propellers thereof are generally horizontally disposed, the second and third structures being arranged for causing water propelled from the further sheath to be pushed forward of the craft and incident on water propelled from at least one sheath adapted to be on the second structure.
30. The water craft of claim 29 further including flexible vertically extending connectors between the sheaths and the first, second and third structures.

31. The water craft of claim 15 wherein the water craft is a catamaran.
32. The water craft of claim 15 further including a structure for carrying at least one of the sheaths forward of the forward end of the craft.
33. The water craft of claim 31 wherein the structure is pivotable relative to the longitudinal axis of the craft between the first and second structures.
34. The water craft of claim 15 further including a vertically extending flexible connector between the sheath and the craft.